

Performance Enhancement and Concepts in Research

Ergogenic Aids

- are substances or phenomena that improve an athlete's performance
- Performance Enhancement products can fall into the following categories;
pharmacological
hormonal
physiological
nutritional
psychological

Ergolytic Substances

- are products which can actually impair performance
- Ironically and tragically, several ergolytic drugs have been promoted as ergogenic aids

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Placebo Effect

- phenomenon by which your expectations of a substance determine your body's response to it

Studies often run with two groups;

- a) Test Group
- b) Placebo Group- Control Group

One group will receive the actual drug, while the other control group will receive *placebo drug* which is visually identical yet an inactive substance (*Sugar Pill*).

- many studies show the same desired change in the control or placebo group as test group

This **subject-in-the-dark** type research is called a **Blind Study**

Many Ergogenic Aids have more psychological influence than a measurable, conclusive physiological effect.

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Double Blind Studies

- used to figure out if scientists/doctors administering the substances are giving hints to the subjects and/or having an affect on the outcome. In this situation, the researcher keep the doctors in the dark about which subjects are in the test and control groups. Then their role is merely to record the observations.

Financial Gain

- important for consumers to be aware that many studies are created by the manufacturers of the actual products being tested. This is a contradiction of information.
- Manufactures are concerned mainly with the sale of their product and will falsify information or pay off researchers to get a 'seal of approval'.

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Biased Sources

- while reading an article in a magazine about a product can prove to be an interesting experiment. Consider the content of the article, is it encouraging the use of a product, for example Creatine? Flip through the pages of the magazine and look for ads. You will certainly find the product being advertised in the same magazine. draw connections between the amount of money the magazine makes from

- a) Readership (10% of profit)
- b) Ads (90% of profit)

Magazines are biased in favour of the companies selling the products

Remember

- no substance comes without side effects
- be weary of information such as 'long term consequences have not been assessed'

Where can we find reliable information?
What happened to athletes who simply trained hard and ate well?
Has sport improved simply because of Ergogenic Aids?

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